

What is claimed is:

1. A fuel dispenser having a fuel hose breakaway assembly comprising in combination:
a fuel dispenser having an outlet, a fuel nozzle attached to a fuel hose, said fuel hose being connected to the dispenser outlet through a breakaway assembly, said breakaway assembly comprising,
an inner ball-shaped valve section coupled with an outer socket-shaped breakaway section.
2. The fuel dispenser having a fuel hose breakaway assembly of claim 1, wherein:
said inner ball-shaped valve section comprises a valve body connected to the dispenser outlet, said valve body having a semi-spherical outer shape and dimension at one end, and
said breakaway section comprises a breakaway body connected to a fuel hose coupling at one end of a fuel hose.
3. The fuel dispenser having a fuel hose breakaway assembly of claim 2, wherein:
said valve section further comprises a threaded bushing, a ball seal, a spring and a rubber o-ring, said valve body having an opening on an end into which to insert the ball seal and threads to secure an end of the threaded bushing to enclose the ball seal.
4. The fuel dispenser having a fuel hose breakaway assembly of claim 3, wherein:
said breakaway section further comprises,
a semi-spherical fitting having an opening at one end that has pipe threads for connection to the fuel hose coupling, a hex portion for securing the breakaway section while tightening the threaded coupling of the fuel hose assembly,
said breakaway section further comprising a semi-spherical dome having a large opening, said dome having an inside shape and dimension corresponding to the outside shape and dimension of said spherical end of said valve body.
5. The fuel dispenser having a fuel hose breakaway assembly of claim 3, wherein:

the valve body has a male threaded section on its outer surface and a hex section for threading into the dispenser outlet port, and further comprises a groove in which is disposed the o-ring.

6. The fuel dispenser having a fuel hose breakaway assembly of claim 5 wherein:
the valve body comprises a plurality of stand-off profiles to center the ball seal and has a round outlet opening at a first end that is smaller in diameter than the ball seal; said valve body comprises a second opening at its opposite end that is also smaller than the ball seal; said ball seal being compressible for insertion into the valve body.

7. The fuel dispenser having a fuel hose breakaway assembly of claim 6 wherein:
said valve section further comprises a ball seat,
said spring in said valve section is disposed to apply force to the ball seal in the direction of the ball seat and against a ball standoff in said breakaway section, said standoff preventing the ball seal from completely sealing off fuel flow through the assembly until the breakaway section is separated from the valve section.